

FRF-172 DATA SHEET

Description:

The FIRST RF Corporation FRF-172 antenna system is an omni-directional, high power, multi-band, high gain omni UHF/L-Band antenna system suitable for installation on commercial and tactical wheeled vehicles.

The antenna eliminates the need for separate UHF and L-Band antennas on vehicles and improves cosite and RF system performance.

The antenna is available in a ruggedized spring mount currently as a dual band (UHF/L) with optional tri-band upcoming release which includes VHF.

The product is the latest version of the FIRST RF multi-band vehicular family of antennas which have been manufactured in high quantities.

The antenna has been designed to meet MIL-STD 810 environments and to pass additional Munson road test conditions when suitably mounted on the vehicle platform. The antenna has also passed oak beam strike testing at 25 mph.

RF Performance Overview:

L-Band: Frequency: 800-2500 MHz
Gain: $\geq +3$ dBi
VSWR: 2.5:1 Max

UHF: Frequency: 225-450 MHz
Gain: ≥ 0 to +3 dBi
VSWR: 3:1 Max

Nominal Impedance: 50 Ohms
Power Handling: 100W CW
Polarization: Vertical
Isolation: Better than 25 dB



FRF-172 Spring Mount Antenna on HMMWV

Environmental:

Designed to exceed MIL-STD-810F
Temperature: -40-+71°C Operational

Mechanical Overview:

Connectors: Band UHF N Type Female
Band L N Type Female

Flexibility: Spring with damping
Physical Dimensions: Height 96" with Spring Base

Outside Diameter: 1.6"
Antenna Weight: 11 lbs. with Spring Base

Radome: Electrically Insulated to 10kV rms

Vehicle Mounting: Spring Mount Antenna has flexible eight hole mounting interface and vehicle mounting bracket provides the Standard four (4) hole interface mount per CECOM drawing A3207505.